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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,805	03/28/2007	Roger Franciscus Hamelinck	252047	6161

23460 7590 06/01/2011
LEYDIG VOIT & MAYER, LTD
TWO PRUDENTIAL PLAZA, SUITE 4900
180 NORTH STETSON AVENUE
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EXAMINER

CHEN, YU

ART UNIT	PAPER NUMBER
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2815

NOTIFICATION DATE	DELIVERY MODE
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06/01/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Chgpatent@leydig.com

Office Action Summary	Application No. 10/578,805	Applicant(s) HAMELINCK ET AL.	
	Examiner YU CHEN	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 and 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/09/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I (claims 1, 2 and 6-9) in the reply filed on 06 May 2011 is acknowledged.

Claims 3-5 and 10-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 06 May 2011.

Claim Objections

Claims 8 and 9 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. All limitations in claims 8 and 9 appear to be equivalent to limitations in claim 1 and 2. It is unclear how claim 8 further limits independent claim 1. Furthermore claim 9 appears to be essentially a duplicate of claim 2.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2 and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the limitations “variably magnetizable” render the claim indefinite because it is unclear what constitutes “variably magnetizable”. The specification describes the base plate 20, membrane 26, etc., as magnetically permeable. Therefore it is unclear how the claimed “variably magnetizable” is related to “magnetically permeable” as described in the specification. No specific description was given for the claimed “variably magnetizable” in the original disclosure. The recited “variably magnetizable” may be subject to enablement issues since it is unclear how “variably magnetizable” is achieved based on the disclosure filed originally.

Furthermore, it is unclear if the claimed “deformable membrane” is referring to the “deformable mirror” 14 or the “magnetically permeable membrane 26” in FIG. 2. If “deformable membrane” corresponds to element 26 in FIG. 2, it is unclear what structure is referred to by the “variably magnetizable resilient surface”. It is strongly recommended that applicants include corresponding reference labels for the claim limitations so as to avoid any confusion of wording applicants used, inconsistently, in the claims and the specification.

Other claims are rejected for dependence on a rejected claim.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin et al. (US Patent No. 5,774,252)

Yang (US Patent No. 7,268,081 B2)

Fleming (US Patent No. 5,867,302)

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Clark et al. (US Patent No. 6,384,952 B1)

Yang, Eui-Hyeok, "A Wafer-Scale Membrane Transfer Process for the Fabrication of Optical Quality, Large Continuous Membranes", Journal of Microelectromechanical Systems, Vol. 12, No. 6, Dec. 2003, pp 804-815.

Divoux et al., "Deformable Mirror using Magnetic Membranes: Application to Adaptive Optics in Astrophysics", IEEE Transactions on Magnetics, Vol. 34, No. 5, Sept. 1998, pp 3564-3567.

Teter et al., "Precision cryogenic magnetostrictive actuator using a persistent high TC magnet", Journal of Applied Physics, Vol. 87, No. 9, May 2000, pp 6313-6315.

Bifano et al., "Surface Micromachined Deformable Mirrors", Conference on Emerging Technologies and Factory Automation (1996), Vol. 2, pp 393-399.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YU CHEN whose telephone number is (571)270-7881. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM EDT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. C./
Examiner, Art Unit 2815

/Jerome Jackson Jr./
Primary Examiner, Art Unit 2815